



## Apothecary Chest

**T**his clever adaptation of a traditional Early American apothecary chest is certain to complement any home with a Colonial or country style interior decor. The beauty of the chest is that it is far more functional than the old apothecary chests with only small sized drawers. While this design imitates the multiple "box" drawer look, the middle and lower drawers are in fact oversize and accommodate larger items. As shown in the exploded view, the two middle drawers, and the single full-width lower drawer retain the old box drawer look through the use of inlaid false divider strips. We constructed our chest from pine, the material most accessible to local craftsmen of old.

As we often do with easy pine projects, we have designed this piece so that it can be constructed from commonly available  $\frac{1}{4}$  in. thick pine boards, requiring no edge-gluing. The sides (A), top (B), case dividers (C), and drawer dividers (H) can all be cut from  $1 \times 12$  stock, which measures  $\frac{1}{4}$  in.

thick by  $11\frac{1}{4}$  in. wide dressed. You will need a  $1 \times 12 \times 10$  ft. long board for the four case divider parts, and a  $1 \times 12 \times 9$  ft. long board for the drawer dividers, two sides and top. The back (D) is cut from  $\frac{1}{4}$  in. thick plywood or hardboard. The base front (F) and base sides (G) are cut from a  $1 \times 6 \times 5$  ft. long board, with the waste being used for the filler (E). A  $1 \times 8 \times 7$  ft. long board can be crosscut into all the drawer fronts. Note that although we show  $\frac{1}{2}$  in. stock being used for the various drawer side and back parts, if you can't obtain  $\frac{1}{2}$  in. thick material you might consider utilizing  $\frac{3}{4}$  in. thick stock for the drawer case parts instead. Refer to the cutting diagram for the layout of all the  $\frac{1}{4}$  in. thick parts.

After cutting the sides, top, and case dividers to length and width, use the table saw equipped with a dado head to cut the  $\frac{1}{4}$  in. deep by  $\frac{1}{4}$  in. wide dadoes in the sides for the three lower case dividers, and to rabbet the top end of the sides  $\frac{1}{4}$  in. deep by  $\frac{1}{4}$  in. wide to accept the uppermost case divider.

Next, use the dado head and an auxiliary fence to establish the  $\frac{1}{4}$  in. by  $\frac{1}{4}$  in. rabbet along the inside back edges of the sides to accept the plywood back. Lastly, cut the  $2\frac{1}{2}$  in. radius reveal in the bottom end of the sides.

Now, you must cut the stopped dados in the three uppermost case dividers to accept the drawer dividers. The most effective way to cut these  $\frac{1}{4}$  in. by  $\frac{1}{4}$  in. by 10 in. long stopped dados is to use the jig shown in the instructions for making the Early American style bookcase (page 28). Using a  $\frac{3}{4}$  in. diameter straight cutter, each stopped dado can be cut in a single pass, although using two passes and removing  $\frac{1}{8}$  in. of stock at a time will result in less wear on both the router and the bit. As is also shown with the bookcase, a chisel is used to square the ends of these grooves. Note that there are three drawer dividers to separate the four top drawers, and a single divider to separate the two middle drawers.

After ripping the drawer divider stock to a  $10\frac{1}{4}$  in. width, and crosscutting the four dividers to their  $6\frac{1}{2}$  in. length, notch the upper and lower front edges  $\frac{1}{4}$  in. by  $\frac{3}{4}$  in. as shown. Now, assemble the case using glue, countersunk screws, and plugs. A dry test assembly is recommended to insure an accurate fit of the parts before you final assemble, however. The  $\frac{1}{4}$  in. by 21 in. by 28 in. back (D) will serve to help square up the case if it is cut accurately.

When the case has dried, cut and fit the base front and sides. To make the base parts, first rip the stock to establish the 4 in. width. Then use a  $\frac{1}{4}$  in. radius round-over bit to radius one edge of the stock, and lastly cut the miters to establish the base front and the base sides. Now transfer the profile to the base front using the illustrated grid pattern, lay out the 2 in. radius reveal on the base sides, and cut these parts out using either the band saw or saber saw.

Cut the filler strip (E) to size, and glue and screw it in place before securely gluing and screwing the base front in position. Note that the base front is screwed through the filler strip (see exploded view). Before the base sides are applied, you will need to drill several slotted holes, as illustrated, in the sides. These slotted holes, which are made by drilling side-by-side holes and cleaning out between with a rattrail file, will allow the sides to expand and contract relative to the base sides, which are in a cross-grain orientation. Use glue on the base front and sides at the miters. Add the top to complete the case assembly. The top is glued in place (a good long grain-to-long grain glue surface). The dowel pins shown in the exploded view are only for the purpose of properly locating the top.

While we suggest a drawer construction as shown in the exploded view, you will probably want to use the method you prefer or are most familiar with. Keep in mind that the dimensions provided in the bill of materials are for the various drawer parts using our method of construction. Note carefully that all dimensions given are calculated from "point to point." In practice, of course, the drawers must be sized slightly smaller, to fit properly. For example, with the smallest drawers, the measurement of the drawer front (I) will probably be about  $5\frac{1}{16}$  in. by  $6\frac{1}{4}$  in., or  $\frac{1}{16}$  in. less in width and length than the bill of materials specifications. Experienced woodworkers recognize that drawers are sized to fit the available opening, whatever that opening might be. The bill of materials dimensions are therefore only a rough guideline to help in calculating material required.

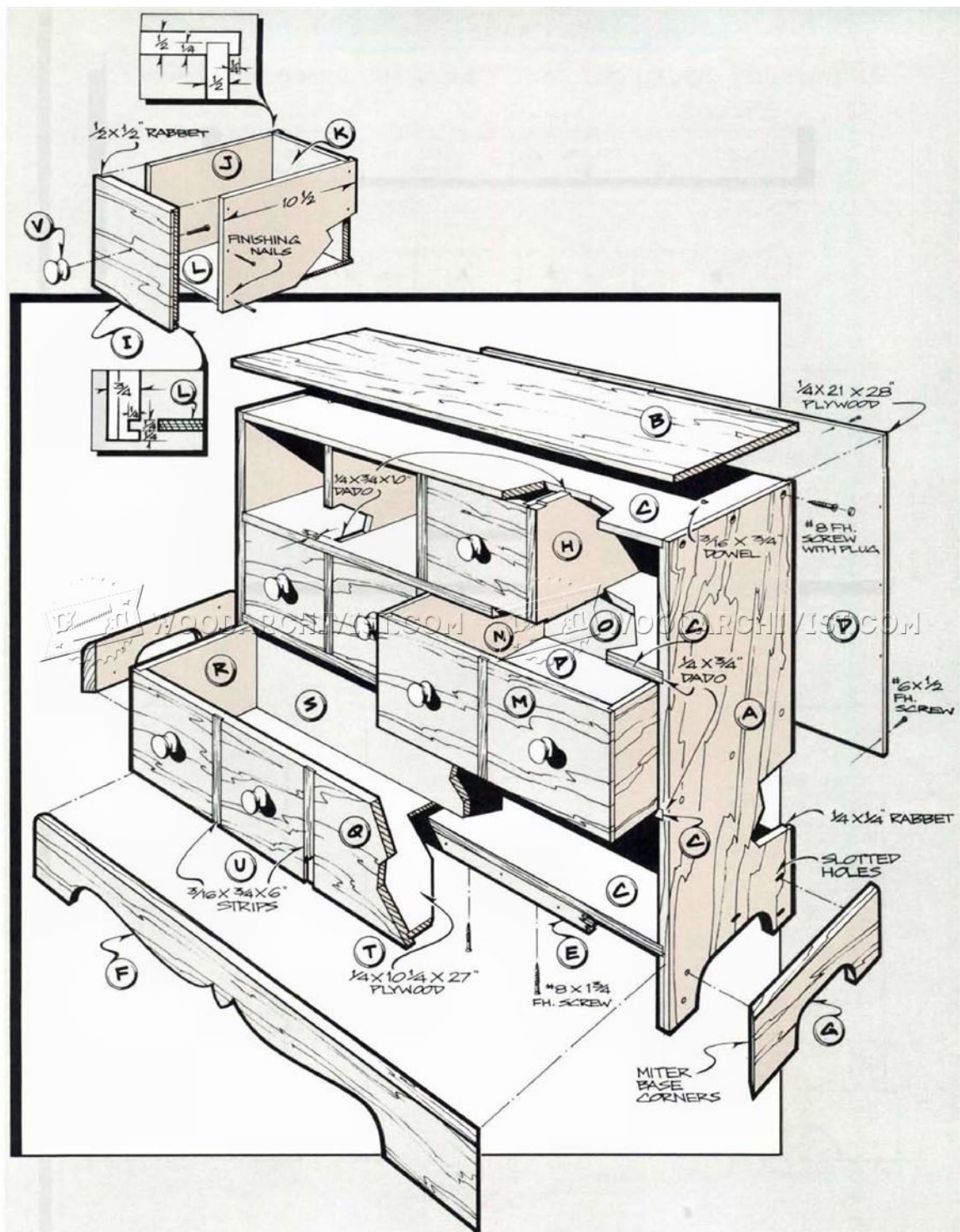
The false drawer front dividers are established by using the dado head to cross-cut a slot as shown to accept an inlay strip (U). Note that the two middle drawer faces each have one inlay strip, while the bottom drawer face has three. We

recommend making these strips slightly thicker than necessary, and then planing and sanding them flush with the drawer faces after they have been glued in place. These operations must be completed before the drawers are assembled.

A light stain, such as Minwax's Colonial Maple, followed by an application of penetrating oil, completes the project. The porcelain drawer knobs (V), which are available at most hardware stores, lend the piece just the right accent. W&J



Bill of Materials (all dimensions actual)			
Part	Description	Size	No. Req'd.
<b>Case</b>			
A	Side	$\frac{3}{4}$ x 11 x 25	2
B	Top	$\frac{3}{4}$ x $11\frac{1}{4}$ x 30	1
C	Case Divider	$\frac{3}{4}$ x $10\frac{3}{4}$ x 28	4
D	Back	$\frac{1}{4}$ x 21 x 28	1
E	Filler	$\frac{3}{4}$ x $1\frac{1}{4}$ x $27\frac{1}{2}$	1
F	Base Front	$\frac{3}{4}$ x 4 x $30\frac{1}{2}$	1
G	Base Side	$\frac{3}{4}$ x 4 x $11\frac{3}{4}$	2
H	Drawer Divider	$\frac{3}{4}$ x $10\frac{3}{4}$ x $6\frac{1}{2}$	4
<b>Small Drawer</b>			
I	Front	$\frac{3}{4}$ x 6 x $6\frac{5}{16}$	4
J	Side	$\frac{1}{2}$ x 6 x $10\frac{1}{2}$	8
K	Back	$\frac{1}{2}$ x $5\frac{1}{2}$ x $5\frac{3}{16}$	4
L	Bottom	$\frac{1}{4}$ x $5\frac{3}{16}$ x $10\frac{1}{4}$	4
<b>Medium Drawer</b>			
M	Front	$\frac{3}{4}$ x 6 x $13\frac{3}{8}$	2
N	Side	$\frac{1}{2}$ x 6 x $10\frac{1}{2}$	4
O	Back	$\frac{1}{2}$ x $5\frac{1}{2}$ x $12\frac{1}{8}$	2
P	Bottom	$\frac{1}{4}$ x $10\frac{1}{4}$ x $12\frac{1}{8}$	2
<b>Large Drawer</b>			
Q	Front	$\frac{3}{4}$ x 6 x $27\frac{1}{2}$	1
R	Side	$\frac{1}{2}$ x 6 x $10\frac{1}{2}$	2
S	Back	$\frac{1}{2}$ x $5\frac{1}{2}$ x 27	1
T	Bottom	$\frac{1}{4}$ x $10\frac{1}{4}$ x 27	1
U	Inlay Strip	$\frac{3}{16}$ x $\frac{3}{4}$ x 6	5
V	Knob	1 in. dia. porcelain	12



CUTTING DIAGRAM FOR CASE PARTS AND DRAWER FRONTS

The diagram shows four components with their dimensions and section labels:

- Top Panel (1x12x10):** Total length 120, height 12 1/4. Sections include a left end cap, a section labeled 'C' (width 10 3/4), another section labeled 'C', and a right end cap.
- Middle Panel (1x12x9):** Total length 108, height 11 1/4. Sections include a left end cap, a section labeled 'B', a section labeled 'A' (width 11), another section labeled 'A', a section labeled 'H' (width 10 3/4), another section labeled 'H', a third section labeled 'H', and a right end cap.
- Side Panel (1x6x5):** Total length 60, height 5 1/2. Sections include a left end cap (height 4, width 1 1/4), a section labeled 'F', a section labeled 'A', another section labeled 'A', and a right end cap.
- Bottom Panel (1x8x7):** Total length 84, height 7 1/4. Sections include a left end cap labeled 'I', four sections labeled 'M', a section labeled 'C' (width 6), and a right end cap labeled 'Q'.

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